

Amendments to the Claims:

This listing of claims will replace all prior versions, and listing, of claims in the application.

**Listing of Claims:**

1. (Currently Amended) A server-client network system for a genotyping analysis on a target sample, the server-client network system comprising:

    a server including an analysis algorithm databases storing a plurality of analysis algorithms required for the genotyping analysis; and

    a client system communicatively coupled to the server; and

a client engine executing on the client system, the client engine performing:

        receiving results of a biochip test on the target sample using a biochip, downloading an analysis algorithm corresponding to the biochip from ~~accessing the analysis algorithm databases,~~ performing the genotyping analysis on the target sample using the downloaded analysis algorithm ~~with reference to the databases,~~ and storing results of the genotyping analysis in the client system.

2. (Currently Amended) The server-client network system of claim 1, further comprising ~~wherein the accessed databases comprise:~~

    a biochip identifier and layout database storing information on an identifier and layout of the biochip;

an analysis algorithm database storing algorithms required for the genotyping analysis; and

    a quality control criteria database;

wherein the biochip identifier and layout database and the quality control criteria database are accessed by the client system for performing the genotyping analysis on the target sample.

3. (Currently Amended) The server-client network system of claim [[1]] 2, wherein the biochip identifier and layout database and the quality control criteria database accessed

databases are built up from statistical data for results of tests on a number of patient and reference samples using the biochip.

4. (Currently Amended) The server-client network system of claim [[2]] 1, wherein the analysis algorithm ~~accessed~~ databases is [[are]] built up from statistical data for results of tests on a number of patient and reference samples using the biochip.

5. (Currently amended) The server-client network system of claim 1, wherein the client system comprises:

an optical scanning system through which the results of the biochip test on the target sample are received; and

an identifier recognizer which recognizes an identifier of the biochip.

6. (Currently amended) The server-client network system of claim 1, wherein the client ~~comprises~~ an engine ~~performs~~ ing logical functions including:

detecting an identifier of the biochip;

selecting databases corresponding to the identifier of the biochip;

selecting a database position mode from between a server mode and a local replication mode;

downloading the databases corresponding to the identifier of the biochip from the server if the local replication mode is selected and it is determined that the databases do not exist in the client system; and

performing a genotyping analysis on the target sample with reference to the downloaded databases if the local replication mode is selected or performing a genotyping analysis on the target sample with reference to the databases stored in the server if the server mode is selected.

7. (Currently amended) The server-client network system of claim [[2]] 1, wherein the client ~~comprises~~ an engine ~~performs~~ ing logical functions including:

detecting the identifier of the biochip;

selecting databases corresponding to the identifier of the biochip;

selecting a database position mode from between a server mode and a local replication mode;

downloading the databases corresponding to the identifier of the biochip from the server if the local replication mode is selected and it is determined that the databases do not exist in the client system; and

performing a genotyping analysis on the target sample with reference to the downloaded databases if the local replication mode is selected or performing a genotyping analysis on the target sample with reference to the databases stored in the server if the server mode is selected.

8. (Previously presented) The server-client network system of claim 7, wherein the performing a genotyping analysis on the target sample comprises:

reading the biochip identifier and layout database;

reading the results of the test on the target sample input via an optical scanning system;

linking the results of the test on the target sample to spot position information stored in the biochip identifier and layout database;

reading the quality control criteria database;

screening out failed spots from among the results of the biochip test based on the quality control criteria database;

reading the analysis algorithm database;

performing the genotyping analysis on the target sample with reference to the analysis algorithm database; and

storing and/or displaying the results of the genotyping analysis.

9. (Currently Amended) A computer readable medium for a server-client network system for genotyping analysis, the computer readable medium including computer executable instructions for a client system to perform logical operations comprising: [[;]]

receiving databases required for a genotyping analysis from a server and receiving results of a biochip test on a target sample;

downloading an analysis algorithm corresponding to the biochip from an analysis algorithm database stored on a server, the analysis algorithm database storing a plurality of analysis algorithms for the genotyping analysis; and

performing the [[a]] genotyping analysis on the target sample using the downloaded analysis algorithm, ~~results of the biochip test on the target sample with reference to the databases~~ and storing results of the genotyping analysis in the client system.

10. (Currently Amended) The computer readable medium of claim 9, wherein performing the genotyping analysis further includes the received databases comprise: accessing a biochip identifier and layout database stored in the server, the biochip identifier and layout database storing information on an identifier and layout of the biochip; an analysis algorithm database storing algorithms required for genotyping analysis; and accessing a quality control criteria database stored on the server.

11. (Currently Amended) The computer readable medium of claim 10, further comprising instructions for performing wherein the receiving the databases comprises: detecting the identifier of the biochip; selecting databases corresponding to the identifier of the biochip; selecting a database position mode from between a server mode and a local replication mode; and downloading the databases corresponding to the identifier of the biochip from the server if the local replication mode is selected and it is determined that the databases do not exist in the client system, and wherein the performing the genotyping analysis comprises:

reading the biochip identifier and layout database from among the databases stored in the server if the server mode is selected or reading a biochip identifier and layout database from among the downloaded databases if the local replication mode is selected;

reading the results of the biochip test on the target sample input via an optical scanning system;

linking the results of the biochip test on the target sample to spot position information stored in the biochip identifier and layout database;

reading the quality control criteria database;

screening out failed spots from among the results of the biochip test based on the quality control criteria database;

reading the analysis algorithm database;

performing a genotyping analysis on the target sample based on the analysis algorithm database; and

storing and/or displaying the results of the genotyping analysis.

12. (Currently amended) A method of performing a genotyping analysis on a target sample, the method comprising:

a client system receiving results of a biochip test on the target sample using a biochip;

the client accessing system downloading an analysis algorithm corresponding to the biochip from an analysis algorithm databases stored on a server, the analysis algorithm database storing a plurality of analysis algorithms for the genotyping analysis;

the client system performing the genotyping analysis on the target sample using the downloaded analysis algorithm with reference to the accessed databases; and

the client system storing results of the genotyping analysis in the client system.

13. (Currently amended) The method of claim 12, wherein performing the genotyping analysis further includes the accessed databases comprise:

accessing a biochip identifier and layout database stored on the server, the biochip identifier and layout database storing information on the identifier and layout of the biochip;

an analysis algorithm database storing algorithms required for genotyping analysis; and  
accessing a quality control criteria database stored on the server.

14. (Currently amended) The method of claim 13, further comprising wherein the accessing databases comprises:

detecting the identifier of the biochip;

selecting databases corresponding to the identifier of the biochip;

selecting a database position mode from between a server mode and a local replication mode; and

downloading the databases corresponding to the identifier of the biochip from the server if the local replication mode is selected and it is determined that the databases do not exist in the client system; and

wherein the performing the genotyping analysis comprises:

reading the biochip identifier and layout database from among the databases stored in the server if the server mode is selected or reading a biochip identifier and layout database from among the downloaded databases if the local replication mode is selected;

reading the results of the biochip test on the target sample input via an optical scanning system;

linking the results of the biochip test on the target sample to spot position information stored in the biochip identifier and layout database;

reading the quality control criteria database;

screening out failed spots from among the results of the biochip test based on the quality control criteria database;

reading the analysis algorithm database;

performing a genotyping analysis on the target sample based on the analysis algorithm database; and

storing and/or displaying the results of the genotyping analysis.